

St. Lucie County International Airport (FPR)

Master Plan Update
Public Meeting and Workshop

October 15, 2009





ADMINISTRATION (



What is a Master Plan?

- 20-Year projection of Airport's ultimate growth and long-term development by providing:
 - Short and Long-Term Development Options
 - Impacts of new technology
 - Project/facility phasing and costs
 - Land use and Revenue Generation Options
 - Environmental issues, etc.
- Positions the Airport to compete for FAA/FDOT funding.







Airport Objectives and Goals

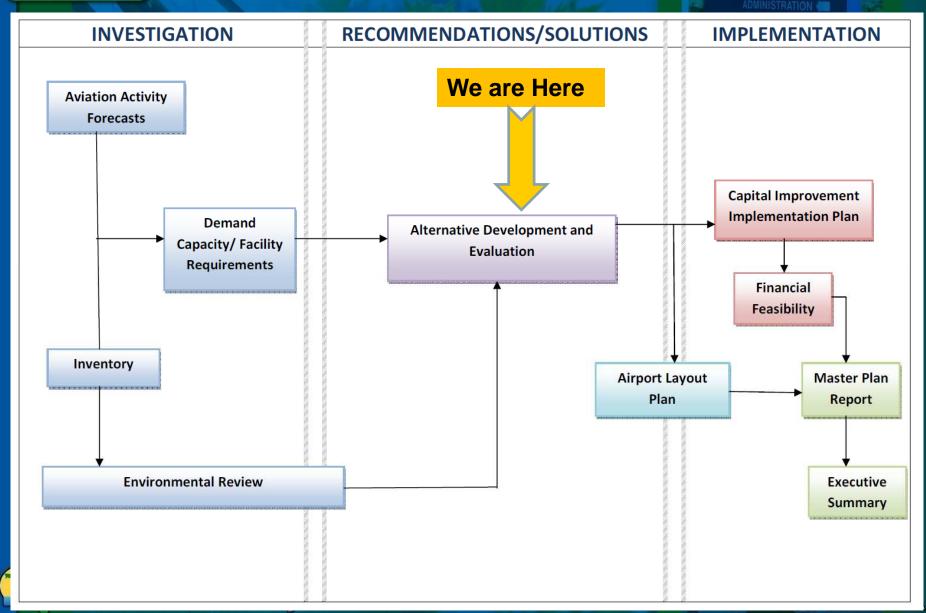
- Airport Objectives:
 - Financially self-sustaining
 - In compliance with all regulations
 - A "good neighbor" in the community
 - A state-of-the-art facility serving General Aviation users and the air transportation needs of the community
- Airport Goals:
 - Generate full use of Commission-owned property for commercial and industrial business.
 - Develop a marketing plan that will attract new business and retain and expand existing business in the area.
- Implement Airport Sustainability Practices and Building Construction.

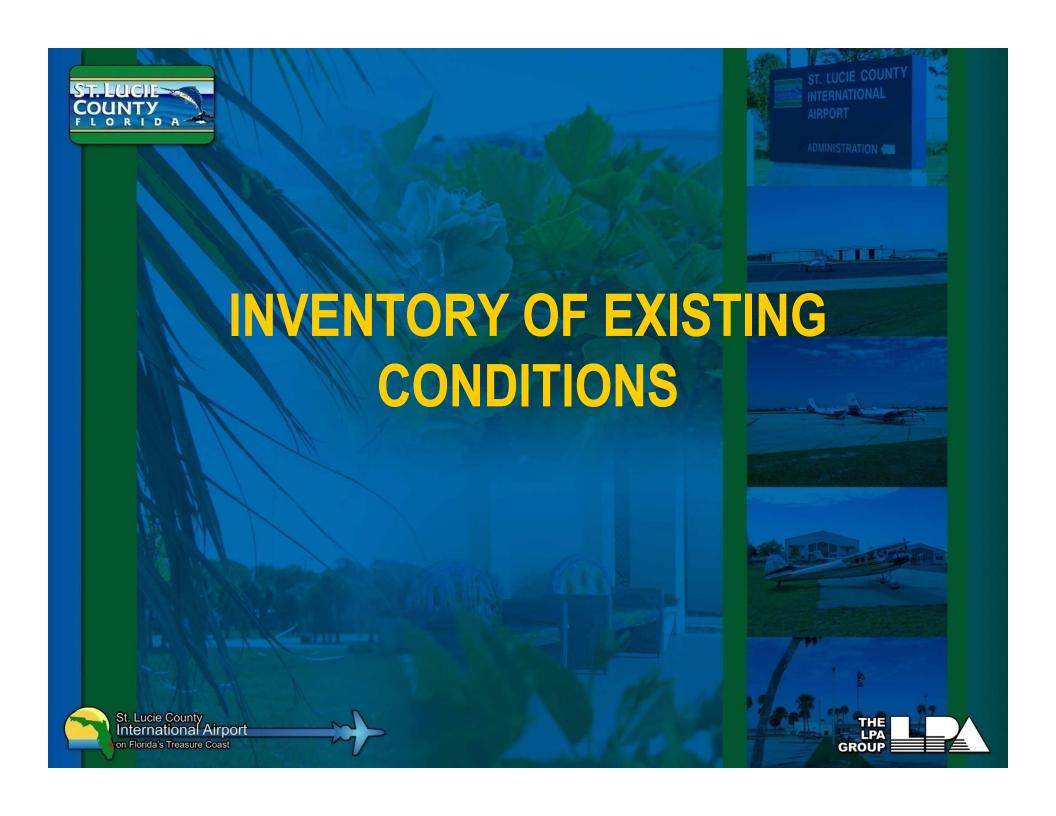
 St. Lucie County International Airport





Master Plan Progress



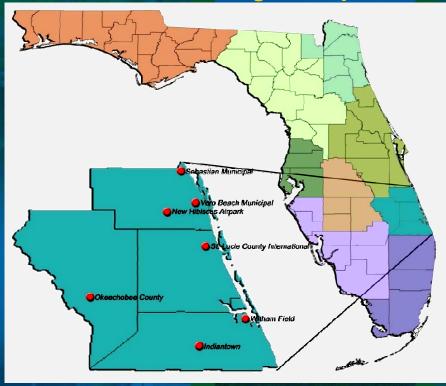




Airport Overview and Current Role

- 3,670 acre public-use General Aviation airport located within Florida's Treasure Coast Region
- Owned by the St. Lucie County Board of County Commissioners (BOCC) and Managed by County Airport Department
- Home to approximately 60 aviation and non-aviation related airport tenants
- Contributes to local community (jobs, air transportation, emergency relief, etc.)
- "Gateway to the Bahamas"
- Potential to become Limited
 Commercial Service Airport

Treasure Coast Region Airports









Treasure Coast Public Airports

Airport (FAA ld.)	<u>St. Lucie</u> (FPR)	<u>Vero Beach</u> (VRB)	<u>Witham</u> (SUA)	<u>Okeechobee</u> (OBE)	<u>Sebastian</u> (X26)	<u>Indiantown</u> (X58)	<u>New Hibiscus</u> (X52)
City	Fort Pierce	Vero Beach	Stuart	Okeechobee	Sebastian	Indiantown	Vero Beach
County	St. Lucie	Indian River	Martin	Okeechobee	Indian River	Martin	Indian River
County Pop. (2008)	268,691	134,987	147,642	40,752	134,987	147,642	134,987
NM from FPR	N/A	10 NM	20.4 NM	29.1 NM	20.3 NM	27.7 NM	11.8 NM
Acreage	3,670	1,707	739	1,060	626	600	90
Tower	Yes	Yes	Yes	No	No	No	No
Longest Runway	6,492 Feet	7,314 Feet	5,826 Feet	5,000 Feet	4,024 Feet	6,300 Feet (Turf)	3,120 Feet (Turf)
Customs Facility	Yes	No	No	No	No	No	No
NPIAS Future Service Level	General Aviation	General Aviation	General Aviation	General Aviation	General Aviation	N/A	N/A
NPIAS Dev. Cost (2009-2013)	\$23,173,608	\$19,190,000	\$40,947,527	\$1,489,322	\$6,082,410	N/A	N/A
FASP 2025 Future Service Level	Commercial	Commercial	Community	Community	Community	Community	Community
Commercial Certification	No	Yes	No	No	No	No	No
NM from PBI	50.8 NM	60.8 NM	30.7 NM	53.4 NM	71.1 NM	28.2 NM	61.4 NM



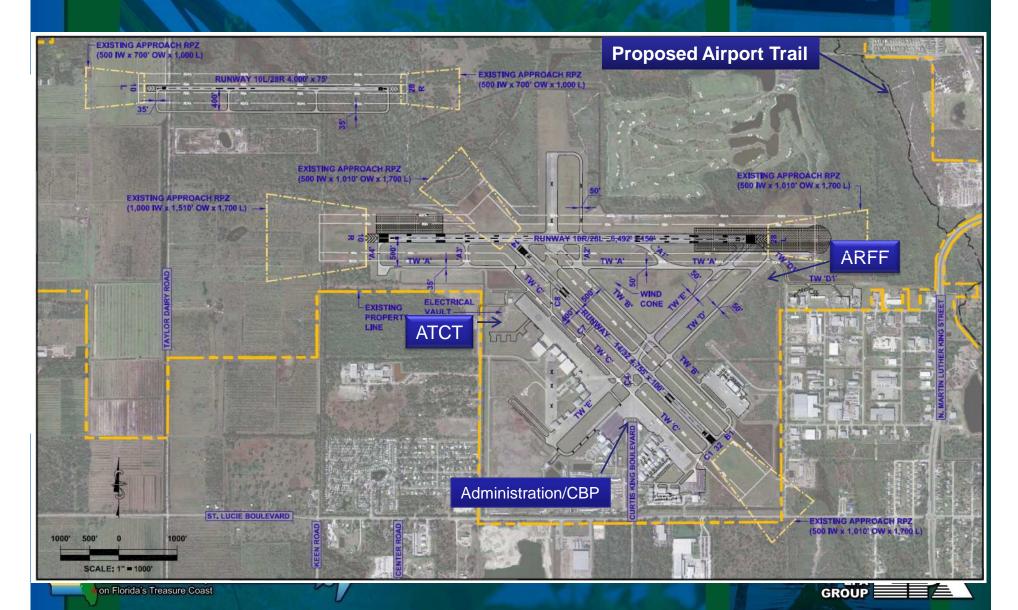






Airfield Facilities Familiarization

ADMINISTRATION (

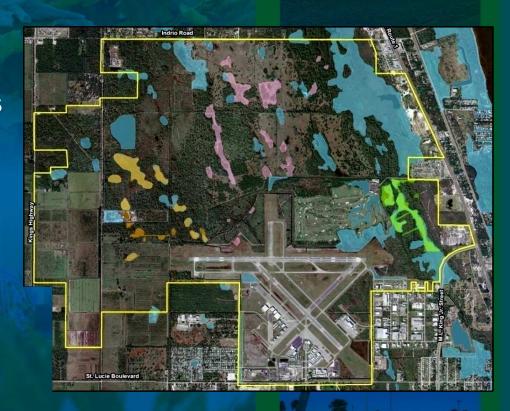




Natural Features Inventory

- Identifies existing natural features which may impact future development including:
 - Archaeological Resources
 - Biotic Communities
 - Protected Species
 - Wetlands & Floodplains

- Project Area
- Wetland Delineated for Runway 9L/27R
- Wetlands Approximated from Aerial and Limited Field Verification
- Wetland Delineated for Runway 9L/27R Mitigation Area
- Wetland and Surface Water Data for SFWMD











Noise Concerns

Unless directed by ATCT to extend to mid-river, all touch-and-go, stop-and-go and full-stop taxi-backs should avoid the noise sensitive areas by

SAFELY TURNING BEFORE REACHING US 1.

All jet aircraft takeoffs are to utilize National Business Aircraft Association closein procedures. Jet aircraft departures on Runway 9 maintain runway heading until 2,000 ft. or reaching the ocean shoreline before initiating any turns. Touch-and-go operations by jet aircraft are prohibited. AVOID NOISE SENSITIVE AREAS (south and east)

Traffic Pattern

When Air Traffic Control Tower is closed (9:00 p.m. to 7:00 a.m.), preferred pattern is:

Right traffic for Runway 14 and 27

left traffic for Runway 32 Left traffic for Runway 9

All aircraft takeoffs should be made utilizing the best rate of climb speed.
 Intersection takeoffs are strongly discourage except as directed by ATCT.

 Runway 14 is preferred in calm wind as traffic, weather, and airspace safety and efficiency permit.

 Discourage Stage 1 aircraft operations unless for life safety, emergency or aircraft recertification. Touch & Go, Stop & Go, and Full-Stop-Taxi-Back Operations Are Limited To:

- Monday through Friday: 8 a.m. to 10 p.m.
- Saturday: 9 a.m. to 10 p.m.
- Not permitted Sundays and Holidays*

*New Years Day, Martin Luther King Jr. Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, Christmas Day.

These operations are allowed at any time if west of US 1, only.

St. Lucie County International Airport is a noise sensitive airport and we ask your consideration of the people that live in the surrounding area by complying with these **Voluntary Noise Abatement Procedures**.

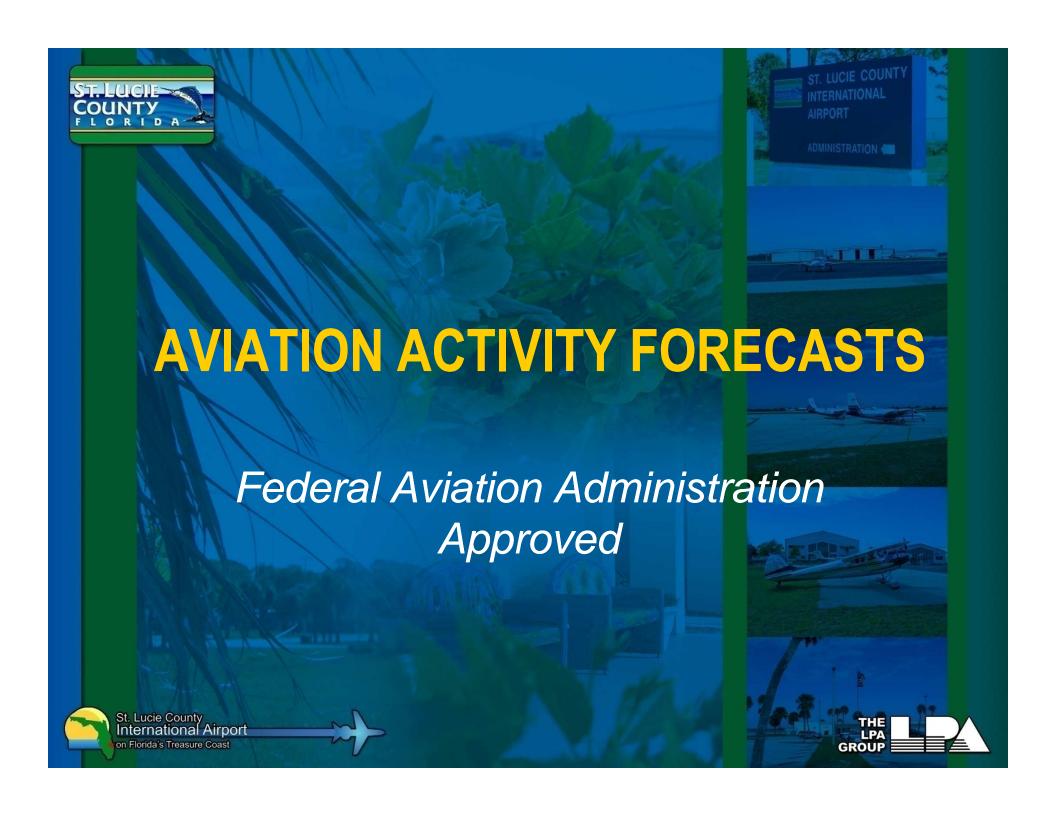
BE A GOOD NEIGHBOR AND FLY QUIET! QUIET FLYING IS GOOD BUSINESS!











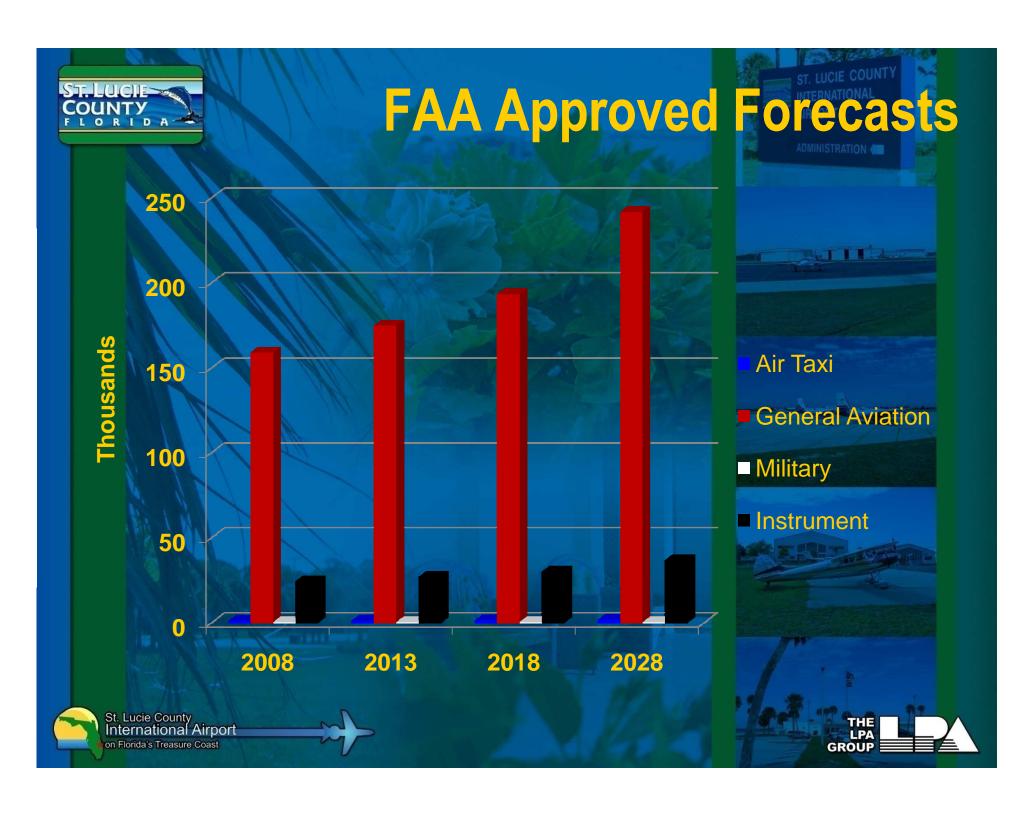


Factors and Opportunities

- Business and Economic Patterns
- ► New Technology (i.e. NextGen, VLJs, etc)
- ► Global Terrorism and War
- Fuel Prices, Mergers, Bankruptcies, and general economy
- Shifts in commercial and General Aviation activity
- Security and Safety Requirements
- Green Technology, etc.









Forecast Fleet Mix and Critical Aircraft

Operations

Type	2008	2013	2018	2028
Single- Engine	116,201	130,831	147,887	187,758
Multi- Engine	28,962	26,606	24,257	20,162
Turboprop	5,900	6,287	6,667	7,495
Jet	3,375	5,361	7,909	17,212
Helicopter	5,840	7,026	8,151	10,971

Based Aircraft

Туре	2008	2013	2018	2028
Single- Engine	122	137	155	175
Multi-Engine	59	59	59	59
Turboprop	12	13	14	15
Jet	14	20	26	34
Helicopter	4	5	6	7











- ► FPR currently has Class D Controlled Airspace – 5-mile radius from surface to 2,500'
- ATC Tower manages local airspace (arrivals / departures/ traffic pattern / airfield) – 7am to 9pm (14 hrs)
- "Virtual" towers can expand controlled airspace hours for safety & noise abatement
- Runway approaches can be redesigned to improve efficiency & avoid sensitive areas

Airspace & NextGen

NextGen in 2018: Operating in the Mid-Term



By 2018, NextGen is expected to offer operational, economic, and environmental benefits while increasing safety throughout all phases of flight.

FAA NextGen Implementation Plan 2009







Airports & NextGen

NextGen in 2018: Operating in the Mid-Term

- Airfield facilities Safety & efficiency of runways, taxiways & aprons can be enhanced by design to eliminate / avoid "runway incursions (especially hotspots")
- Aircraft & vehicle ground movements can be monitored and guided in low visibility conditions to avoid conflicts
- Less airport property will need to be encumbered by height hazard restrictions



FAA NextGen Implementation Plan 2009

By 2018, NextGen is expected to offer operational, economic, and environmental benefits while increasing

safety throughout all phases of flight.







Aircraft & NextGen

NextGen in 2018: Operating in the Mid-Term

- Aircraft can be retrofitted with modern satellite-based equipment to make full use of NextGen system
- Direct GPS flights vs reliance on ground-based navigation will shorten flight times, saving time & fuel
- Controlled descent approaches (CDA's) will provide more efficient arrivals
- Fuel efficiencies will lessen carbon emissions



FAA NextGen Implementation Plan 2009

economic, and environmental benefits while increasing

safety throughout all phases of flight.







NextGen is NowGen

Next Gen is here! – Southeast Florida was one of FAA's first regions to complete installation of ADS-B ground stations (Sebastian/Hobe Sound)

- ADS-B receives 3-D data from each aircraft and transmits data to all aircraft & ATC
- A/C can "see" each other and avoid conflicts
- Continued implementation of NextGen will enhance safety while reducing operational and capital costs in Southeast Florida's airspace

NextGen in 2018: Operating in the Mid-Term



By 2018, NextGen is expected to offer operational, economic, and environmental benefits while increasing safety throughout all phases of flight.

FAA NextGen Implementation Plan 2009

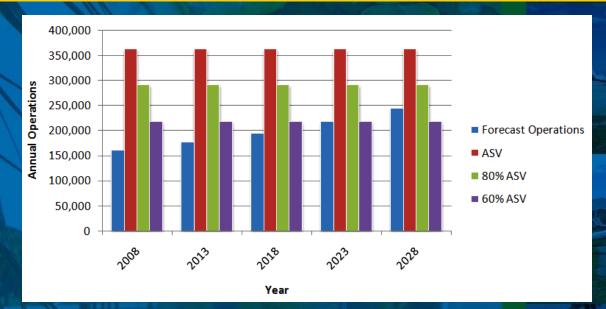






Airfield Capacity

Year	Forecast Annual Operations	Annual Capacity (3 Runway)	%Annual Capacity	Forecast Hourly Operations	Hourly Capacity (3 Runway)	%Hourly Capacity
2008	160,277	363,169	44.13%	104	236	43.99%
2013	176,111	363,169	48.49%	114	236	48.33%
2018	194,871	363,169	53.66%	126	236	53.48%
2023	217,207	363,169	59.81%	140	236	59.61%
2028	243,599	363,169	67.08%	158	236	66.86%



Capacity improvements may be needed in later years of the planning period (additional taxiways, aircraft parking areas, etc.)









Special Uses and Opportunities

- ► Target Industries
 - Aviation
 - Corporate training and shared services
 - Biomedical and Technology
 - ► Institutional Aviation
 - Security and National Defense
 - Regional Distribution
 - Inland Port FDOT Report
 - 2-3 Selection Sites (Ocean Shipping and Aviation)
 - Bonded Warehouse
 - NextGen
 - Sustainable Development, etc.







St. Lucie Positives: Aviation

- Typically Recession Resistant
- Wealth Creating Industry
- ► More Training = Higher Wages
- Compliments other Industries
- Uncluttered Airspace
- Land for Expansion
- ► Two Fixed Based Operators







Economic Development Opportunities

- Aviation Maintenance, Repair and Overhaul
- Homeland Security and Defense
- Aviation Related Training
- Aviation Related Distribution
- Disaster Recovery







Economic Development Opportunities

Tourism & Limited Commercial Service

Possible Partnership with Grand Bahamas
Chamber of Commerce







Other Opportunities

- Aviation Maintenance, Repair and Overhaul
- Homeland Security and Defense
- Aviation Related Training
- Aviation Related Distribution
- Disaster Recovery....









Facility Requirements

Runway, Taxiway & Apron Needs

- Rehabilitate pavement on Runway 10R-28L and Taxiways A, B, C and E
- Resolve Intersection Runway 14
- Preserve land for future airfield expansion and terminal development
- Provide taxiway to Runway 10L-28R
- Upgrade Pavement Strength

Other Airfield Needs

- Install Approach Lighting associated with Runway10R
- Install REILs and PAPIs on Runways 14, 32, 10L, 28R, 10R & 28L
- Upgrade Runway 10R-28L lighting, marking and signage depending upon future role
- Upgrade Electrical Vault
- Relocate/Add Wind Cones and Segmented Circle

Terminal Facilities

- Centralized Airfield Location for future terminal
- Ease of Surface Access from Interstate
- Ability to accommodate long-term demand

Support Facilities

- Central Location for Customs and Border Protection Facilities
- Rehabilitate/Expand Customs to accommodate demand
- ATCT Rehabilitation and Clear Line of Sight
- Expand ARFF to accommodate demand
- Improve Airport Drainage

Land Acquisition/Easement

Associated with Runways 32 RPZ







Pavement Condition





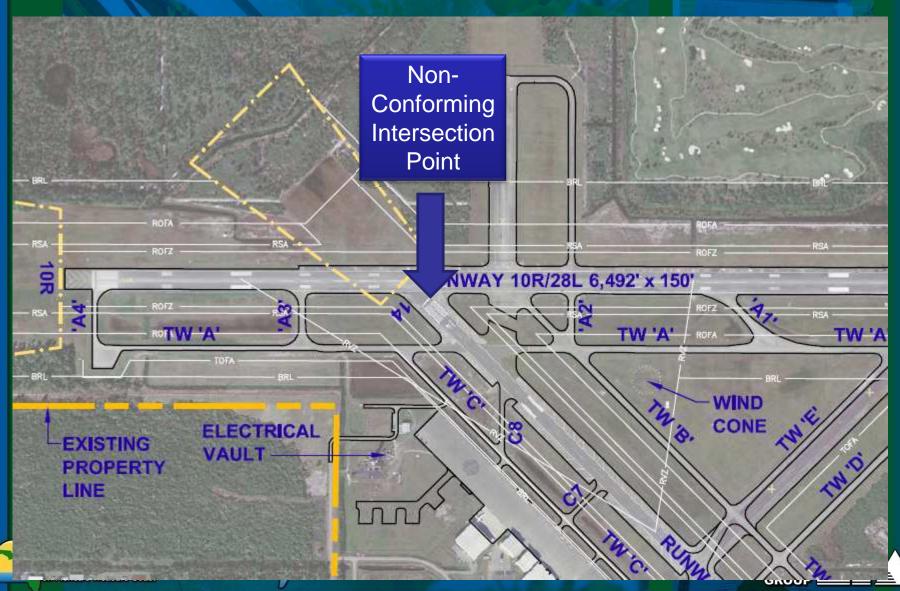






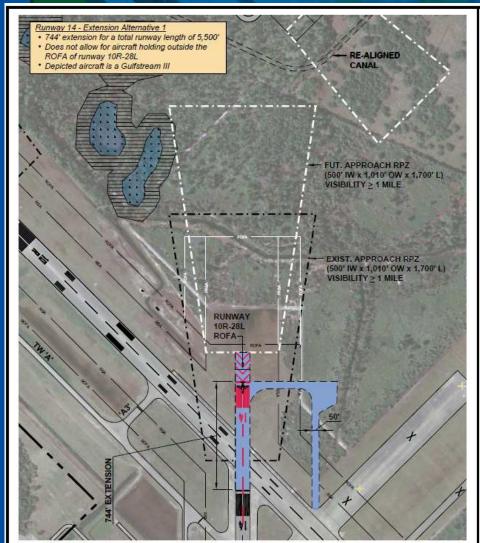


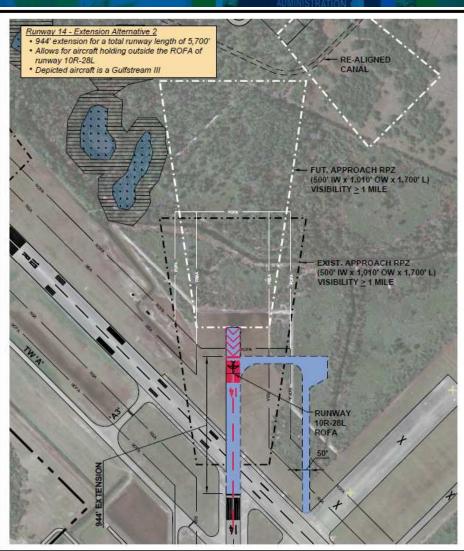
Non-Conforming Runway Intersection





Draft Extension of Runway 14-32



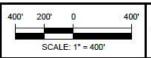






St. Lucie County International Airport Master Plan Update

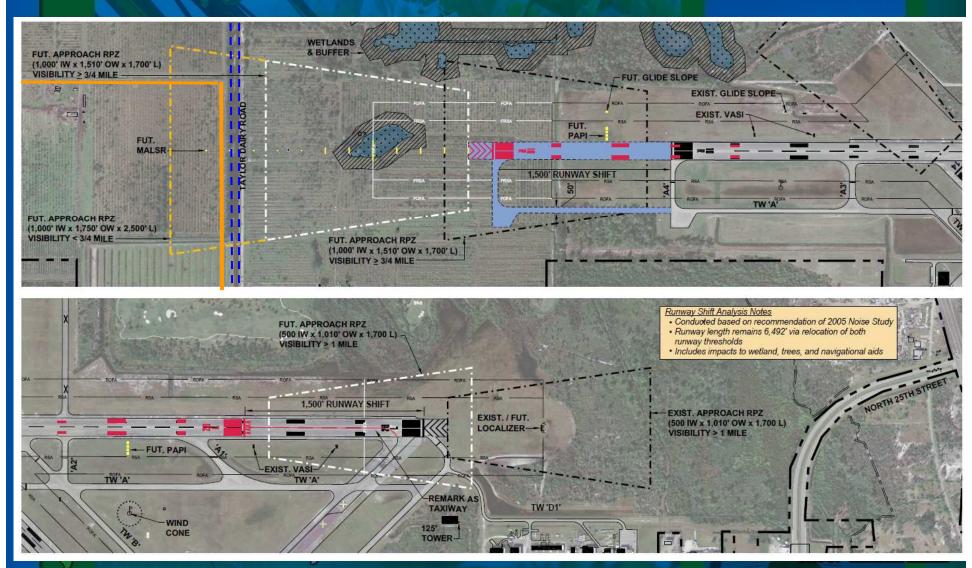
RUNWAY 14 EXTENSION
ALTERNATIVES





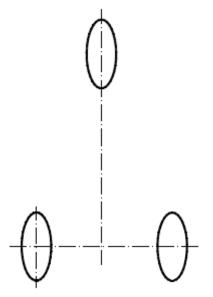


Part 150 Recommendation Shift of Runway 10R-28L

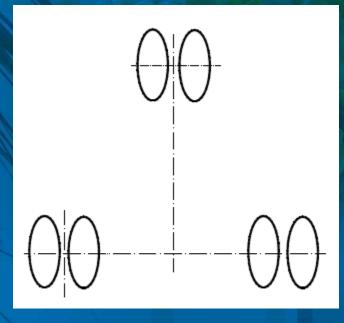




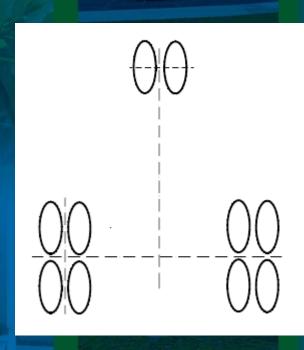
Pavement Strength and Land Configurations



Single Wheel (Cessna 172)



Dual Wheel (Gulfstream V)



Dual Tandem Wheel (B757-200)







Stage 2 & Stage 3 Jet Comparison

Turboprop (B1900)

Stage 3 General Aviation Jet (GV)

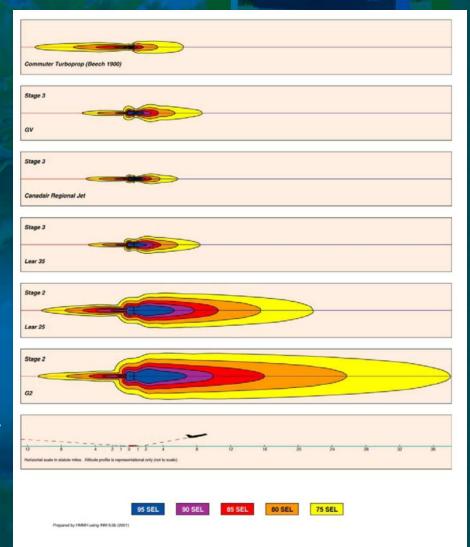
Stage 3 General Aviation Jet (CL600)

Stage 3 General Aviation Jet (Lear 35)

Stage 2 General Aviation Jet (Lear 25)

Stage 2 General Aviation Jet (G2)

Sound Exposure Level Contours for Landing – Takeoff Cycles



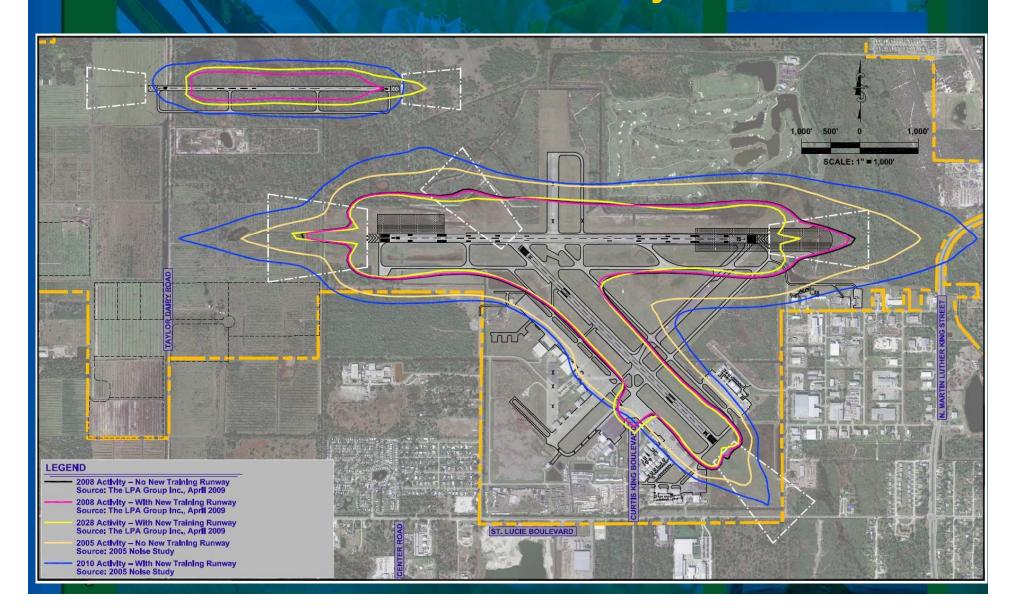








65 DNL Noise Contour Comparison 2005 Part 150 Study and 2008 MPU







TECHNICAL ADVISORY COMMITTEE AND COMMUNITY AIRPORT PERCEPTIONS







Perceived Airport Advantages and Disadvantages

Airport Advantages (Assets)

- Location to Port
- ► Infrastructure Highway/Rail
- Acreage
- Underutilized
- Access to Bahamas
- Draws Industry
- Onsite Customs
- International Airport
 - ► Foreign Trade Zone
 - Commercial/Volume
- Proximity to Tourist Destinations

Airport Disadvantages (Liabilities)

- Distance from Residents
- Pavement Strength
- Surface Access and Signage
- Lack of Industry in Area
- Lacks Part 139 (Commercial Service) Certification
- Limited Commitments
- Environmental Issues
- Lack of Utilities







Perceived Community Perceptions

- ► Air Traffic Control Tower (ATC)
 - ► Corporate/Commercial Pilots Perceive ATC as Advantage
 - Leisure General Aviation Pilots (including gliders) Perceive ATC as Disadvantage
- Overall Public Perceptions
 - General Public assumes that Airport requires large amounts of public funding to operate Perceived Disadvantage.
 - The Airport is self-sufficient, and is using Golf Course rent to pay back previous General Fund contributions – Advantage
- Four Airports within 90 minute drive
 - Competition Disadvantage
 - Commercial Service and Expanded Destinations Advantage









POTENTIAL LONG-TERM AIRPORT ROLE

Based upon Input from
June 30th and October 14th
Technical Advisory Meetings







What Is Long-Termin Role of Airport?

- General Aviation (Training, Corporate, Emergency Services, etc.)?
- Limited Commercial (Commuter Aircraft < 100 Seats)?</p>
- Air Carrier Commercial Service?
- ► Other Options?

The Role of the Airport will define Future Development and Operations.









Technical Advisory Committee Potential Airport Long-Term Vision Exercise

Potential 20-Year Newspaper
Headlines
June 30th, 2009

TAC Workshop







The St. Lucie Times



Next 15-20 Years: Medium Density Commercial Airport including international cargo port with the Bahamas/Caribbean – A Leader in Visionary Development



The St. Lucie Times



The St. Lucie County International Airport will have I-95 Access as a result of a land swap with the Cloud Grove Tract. Negotiations are underway to develop the Airport similar to the Orlando Sanford Airport Facility with the ultimate goal of offering international flights to our Area





United Airlines to start Next Generation, Non-Stop service to Chicago







Regional Hub for the Treasure

Coast – offering Airport Trade Free

Zone and Jump-off Location for

Caribbean Tourism







St. Lucie County International Airport leads four county region in Corporate Traffic





Airport Expansion needed for Future Community Development





St. Lucie becomes Home for New Efficient Aircraft Engine Firm



The St. Lucie Times



New St. Lucie International Gateway Terminal Opens...One more Step in Supporting Local Tourism







Full Commercial Service to Major U.S. Cities. Supports rental car companies and attracts Cargo Operators from Major Shipping Companies to Support Local Facilities and Seaport



The St. Lucie Times



20Year Vision: The People's Gateway to St. Lucie County







90 Year Vision: Land Here in the Southern Most Floridian Airport







New Regional Airport to Break Ground: The Treasure Coast, All Four County Governments Working Together to Build a Regional Commercial Airport and Rail System to Serve the Treasure Coast





DRAFT TECHNICAL ADVISORY COMMITTEE RECOMMENDATIONS

June 30th Workshop







Draft Group Recommendations

- Relocate Power Lines
- Reserve property west of Runway 10R for Runway Extension.
- Do not extend Runway 28L
- Extend Runway 14 to Northwest
- Short-Term Develop Airport Administration Building and Customs for Commercial Terminal
- Industrial Development North Airport Property
- Improve Surface Access :
 - Expand St. Lucie Blvd and Indrio Road to 4-lanes
 - ▶ Improve access to North King's Highway, Florida Turnpike and I-95
- Develop airport as multi-modal facility
- Long-Term -Construct Commercial Terminal Facilities between Runways 10R-28L and 10L-28R
- Coordinate Development with Planned Transportation and Growth Management Development (50 Years)







DRAFT PRELIMINARY ALTERNATIVES

October 14, 2009
Technical Advisory Committee
Meeting





ADMINISTRATION (



Alternative Airport Development Options

- Airfield Development
- Terminal Development
- General Aviation Development
- Aviation Support Facilities
- Non-Aviation Development
- Surface Access
- Sustainable "Green" Development
- Project Phasing and Timing







Development Zones

1500" RELATIVE SCALE: 1" = 1500" Legend Non-Development Areas **Ground Contours** Property Line Roads / Access Utilities Medium







Potential Alternative Scenarios

- ► Alternative 1 General Aviation Only¹
- ► Alternatives 2A and 2B Limited Commercial
- ► Alternative 3 Air Carrier Commercial Service ²
- ► Combination of All Three?
- ▶ Other Option?

¹Includes scheduled aircraft with 9 seats or less and unscheduled aircraft with less than 31 seats

²Requires 14 CFR Part 139 Certification. Airport Requirements dependent upon demand and 14 CFR Part 121, 135 and 380 (public charters with more than 31 seats) operating requirements







Critical Aircraft - Alternative 1

Airport Design & Role

- ► Gulfstream 550
 - ARC C-III
 - MTOW: 91,000 lbs
 - Gear: Dual Wheel
 - Takeoff Dry: 6,902'; Takeoff Wet: 7,937'





Alternative 1 Minimum Requirements

Airfield Facilities

Short-Term Development

- Pavement Rehabilitation Runway 10R-28L
- Install ODALS
- Install REILs and PAPIs
- Rehabilitate Taxiway B

Mid-Term Development

- Rehabilitate, Widen* and Strengthen Taxiways A, C, and E
- Extend Runway 14 and Taxiway B
- Upgrade Pavement Runway 10R-28L to 90,000 lbs DW
- Strengthen Apron Pavements

Support Facilities and Other Facilities/Projects

Short-Term Development

- Perimeter Fencing
- Segmented Circle
- Drainage Improvements
- Airport West Commerce Park Utilities, Infrastructure & Concurrency <u>Mid-Term Development</u>
- Environmental Assessment Runway 10R-28L
- Perimeter Fencing
- Drainage Improvements
- Utilities, infrastructure and traffic concurrency

Phasing Depends upon Demand and Funding Priorities







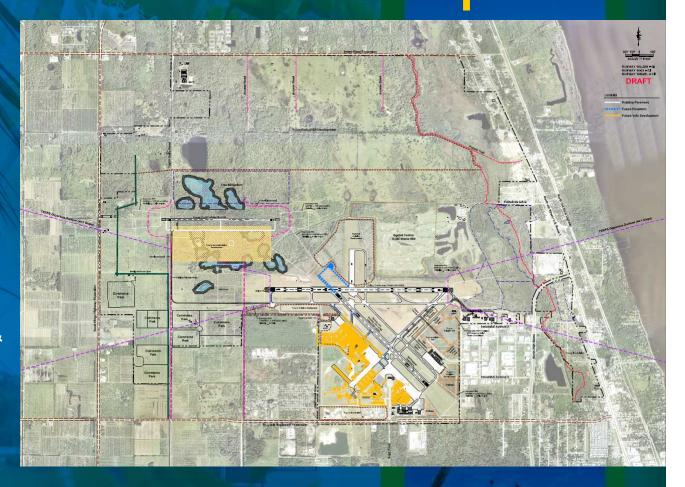
Alternative 1 – General Aviation Development

Strengths

- **Accommodates Forecast** Demand
- Supports non-aviation and aviation development
- Improves Runway 14 intersection
- Does not require easement or land acquisition
- No relocation of Power Lines

Weaknesses

- Does not provide lower approach threshold
- No airfield connectivity between Runways 10R-28L & 10L-28R
- Impacts drainage
- Shortens Runway 32 &
- Cannot accommodate commercial service
- **Impacts Airport West** Commerce Park Development









Commercial Airport Classes 14 CFR Part 139

The Purpose of Part 139 is to Ensure Safety in Air Transportation

	Airport Classes			
Type of Air Carrier Operation		Ш	III	IV
Scheduled Large ¹ Air Carrier Aircraft	X			
Unscheduled Large Air Carrier Aircraft ²	X	X		X
Scheduled Small Air Carrier ³ Aircraft	X	X	X	

¹Large Air Carrier = 31 seats or greater configuration

²Includes Public Charters certified under 14 CFR Part 380

³Small Air Carrier = 9 to 30 seats configuration

Revises a section of an air carrier operation regulation (14 CFR Part 121) to conform with the revised Part 139, which went into effect June 2004.







Sample Airport Part 139 Certification List

Airport Name	New Part 139 Classification	ARFF Index
Fort Lauderdale/Hollywood International	MARCH 1	E
West Palm Beach International	N. S.	D
Charlotte County Airport		A
St. Augustine/St. Johns County Airport		A
Athens/Ben Epps Airport, GA	=	Α
Four Corners Regional Airport, NM		Α
Lakeland Linder Regional Airport	IV	A
Vero Beach Municipal	IV	A

Airports within the same Aircraft Class can range in size, facilities and operations based upon operator requirements and passenger demand.







Commercial Service Requirements

Requirements depend upon the type and level of commercial service

- Airport Certification Manual:
 - ► Airport Emergency Plan (AC 150/5200-31A)
 - Wildlife Hazard Management Plan
 - Airport Personnel and Training Requirements
 - Navigational Aids, Marking and Signage Plan, etc.
- Aircraft Rescue and Firefighting Requirements* (AC 150/5210-6D)
- ► TSA Security Requirements (49CFR Part 1542)
- Airport Design and Regulatory Requirements:
 - AC 150/5300-13, Airport Design
 - AC 150/5340-1, Markings
 - AC 150/5340-18 & 5345-44F, Signage
 - ► AC 150/5340-21,24, 26 & 27A, Lighting
 - ▶ AC 150/5340-30C, Visual Navigation Aids
 - AC 150/5200-30A, AC 150/5220-13 & 18, Snow Removal Plan
 - ► AC 150/5360-13, Terminal Requirements, etc.







Critical Aircraft - Alternative 2A

Airport Design

- Gulfstream 550
 - ARC C-III
 - MTOW: 91,000 lbs
 - Gear: Dual Wheel
 - Takeoff Dry: 6,902';
 Takeoff Wet: 7,937'

Commercial Role

- ► Bombardier DH-8 Q300
 - > 50 seats
 - ► MTOW: 43,000 lbs
 - Regulatory Field Length: 4,541
 - ARC B-III
 - Gear: Dual Wheel











Alternative 2 Airfield Facilities Minimum Requirements

Short-Term

- Pavement Rehabilitation Runway 10R-28L
- Install REILs and PAPIs
- Rehabilitate Taxiway B
- Install ODALS

Mid-Term

- Install MALSR Mid-Term
- ▶ Upgrade Runway 10R-28L to HIRLs
- Upgrade Runway 10R-28L Pavement to 90,000 lbs DW
- Extend and Strengthen (60,000 lbs DW)
 Runway 14 and Taxiway B

Mid-Term

- Strengthen Apron Pavement
- Rehabilitate, Widen* and Strengthen Taxiways A, C, and E
- Lighted Signage (taxi route, holding position, ILS critical areas, distance to go, runway and taxi identification, etc.)
- Markings (taxiway centerline, edge, holding position, ILS critical area, SIDA and touchdown zone)
- Lighting (Centerline pavement reflectors, clearance bar lights, obstruction lights, stop bar lights, edge lighting, etc)

Phasing Depends upon Demand and Funding Priorities







Other Alternative 2 Minimum Requirements

Terminal/Support Facilities Short-Term

- Perimeter Fencing
- Segmented Circle
- ► High Intensity Beacon
- Reconfigure Airport Administration Building to Terminal Facilities

Mid-Term

- Perimeter Road and Fencing
- Additional ARFF Equipment and Materials
- Runway Visibility Range (Transmissometer)
- Expand US Customs Facilities

Other Facilities/Projects Short-Term

- Environmental Assessment Runway 10R-28L
- Drainage Improvements
- Airport Commerce Park Infrastructure & Utilities

Mid-Term/Long-Term

- Relocate Power Lines
- Airport Operating Certificate and Airport Certification Manual
- Drainage Improvements
- Utilities, infrastructure and traffic concurrency
- Personnel Training, Badging, etc.

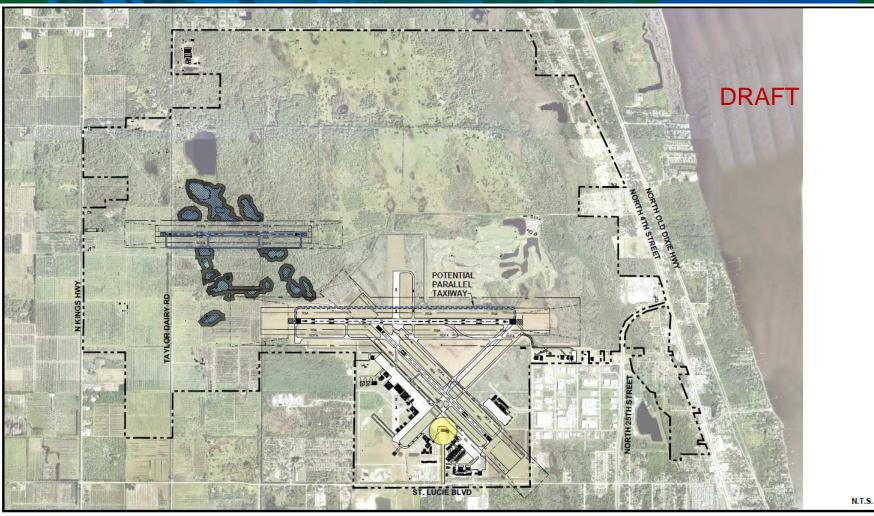
Phasing Depends upon Demand and Funding Priorities







Commercial Terminal/Customs Options







St. Lucie County International Airport Master Plan Update

PASSENGER TERMINAL & **CUSTOMS ALTERNATIVES -**ALTERNATIVE A



DATE 06/22/2009





Terminal Option

STANDARD FAA REQUIREMENTS

NEW CONSTRUCTION

EXISTING BUILDING

SPACE BEHIND TICKET COUNTER	8' - 10' TYPICAL
QUEUING DEPTH @ TICKET COUNTER	12' - 15' TYPICAL
MINIMUM CIRCULATION DEPTH IN LOBBY BEHIND TICKET COUNTER QUEUING	20' MINIMUM
QUEUING SQUARE FOOTAGE FOR 50 PASSENGERS BEHIND TICKET COUNTER	750 SQ FT RECOMMENDED
QUEUING SQUARE FOOTAGE FOR 50 PASSENGERS BEHIND TICKET COUNTER	750 SQ FT RECOMMENDED
SQUARE FOOTAGE FOR 50 PASSENGERS IN LOBBY	1000 SQ FT RECOMMENDED
SQUARE FOOTAGE FOR 50 PASSENGERS IN HOLD ROOM	538 SQ FT RECOMMENDED

EXISTING AREA 3,504.0 SQ.FT.

NEW AREA 3,729.0 SQ.FT.

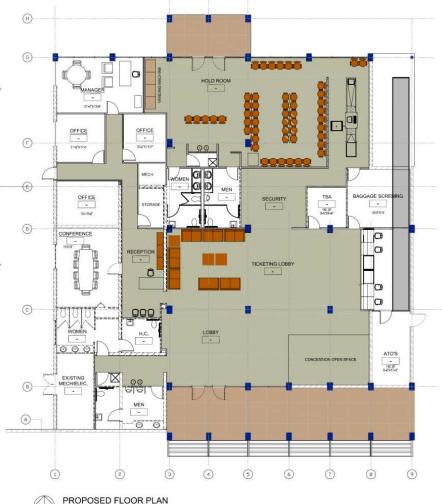
AIR SIDE COVER ENTRY 193.0 SQ.FT.

LAND SIDE CURVE SIDE BAGGAGE MAKE UP 275.0 SQ.FT

TOTAL BUILDING 8,432.0 SQ.FT.





















Terminal Option 2



	STANDARD FAA REQUIREMENTS
SPACE BEHIND TICKET COUNTER	8' - 10' TYPICAL
QUEUING DEPTH @ TICKET COUNTER	12' - 15' TYPICAL
MINIMUM CIRCULATION DEPTH IN LOBBY BEHIND TICKET COUNTER QUEUING	20' MINIMUM
QUEUING SQUARE FOOTAGE FOR 50 PASSENGERS BEHIND TICKET COUNTER	750 SQ FT RECOMMENDED
QUEUING SQUARE FOOTAGE FOR 50 PASSENGERS BEHIND TICKET COUNTER	750 SQ FT RECOMMENDED
SQUARE FOOTAGE FOR 50 PASSENGERS IN LOBBY	1000 SQ FT RECOMMENDED
SQUARE FOOTAGE FOR 50 PASSENGERS IN HOLD ROOM	538 SQ FT RECOMMENDED

EXISTING AREA 3,504.0 SQ.FT.
NEW AREA 3,377.0 SQ.FT.
AIR SIDE COVER ENTRY
LAND SIDE CURVE SIDE
BAGGAGE MAKE UP 135.0 SQ.FT.
TOTAL BUILDING 8,047.0 SQ.FT.

TUG OUT MECHANICAL BAGGAGE SCRENING OT RECEPTION 0 PROPOSED FLOOR PLAN





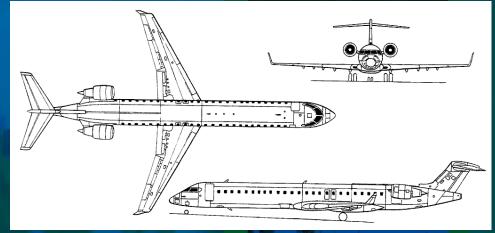


Critical Aircraft – Alternative 2B

Airport Design & Commercial Role

- CRJ-900ER
 - Seats: 86
 - MTOW: 82,500 lbs
 - Gear: Dual Wheel
 - 90% LF Takeoff Weight: 5,570'
 - Regulatory Landing Field Length (Part 121 & 135)
 - Dry: 6,054'
 - Wet: 6,962'











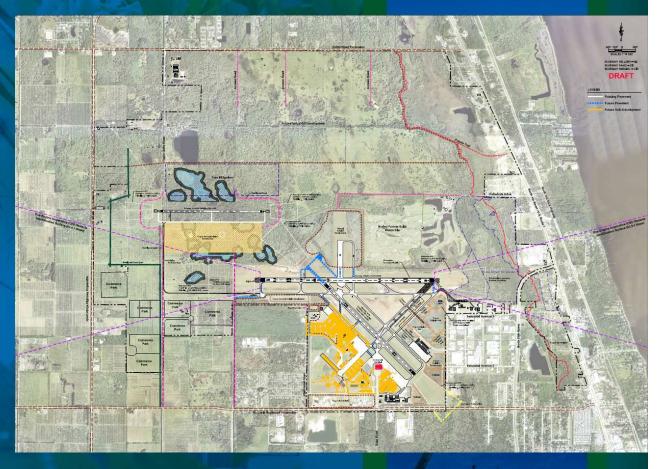
Alternative 2A — Limited Commercia

Strengths

- Accommodates limited commercial service and General Aviation Demand
- Supports non-aviation and aviation development
- Improves Runway 14 intersection
- Does not require relocation of Power Lines

Weaknesses

- Does not provide lower approach threshold
- No airfield connectivity between Runways 10R-28L and 10L-28R
- Impacts drainage
- Requires land acquisition/easements
- Impacts Airport West Commerce Park Development

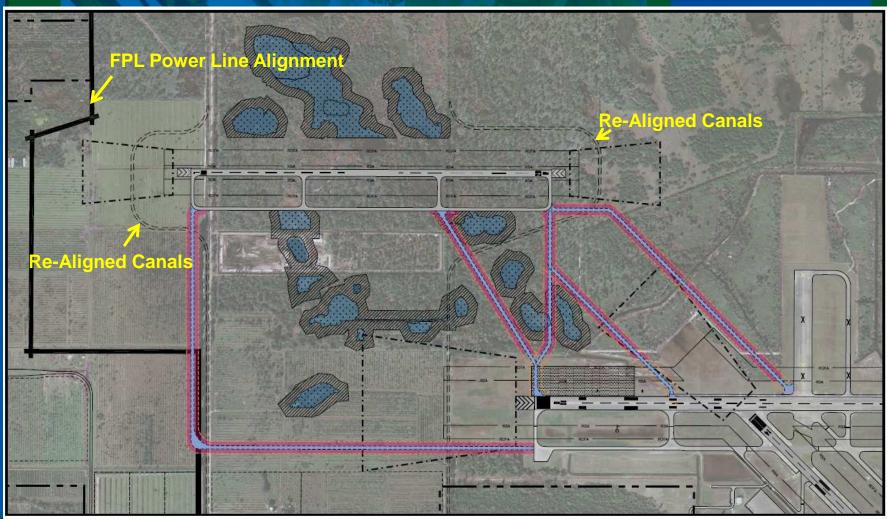






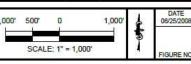


Draft Runway 10L-28R Taxiway Alternatives











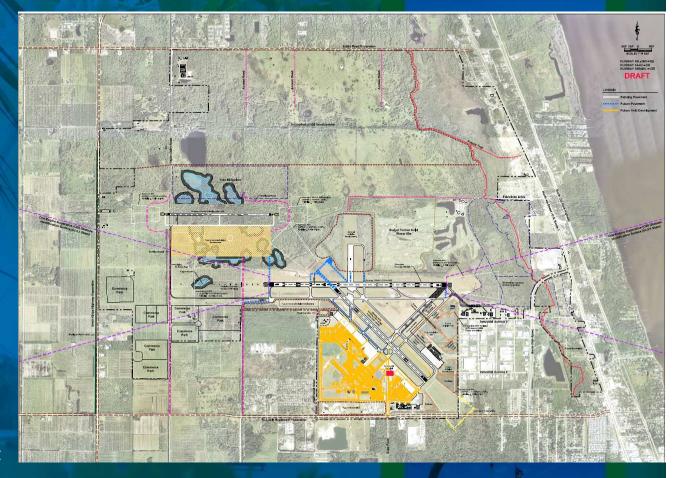
Alternative 2B — Imimited Commercial

Strengths

- Accommodates limited commercial and Air Taxi service and General Aviation Demand
- Supports non-aviation and aviation development
- Improves Runway 14 intersection
- Provides Lower Approach Visibility
- Provides Airfield Connectivity
- Increased Airfield Flexibility

Weaknesses

- Drainage and Environmental Impacts
- Requires land acquisition/easements
- Impacts Airport West
 Commerce Park Development
- Relocation of Power Lines









Critical Aircraft – Alternative 3

Airport Design & Commercial Role

▶ Boeing 737-800

Seats: 162-189

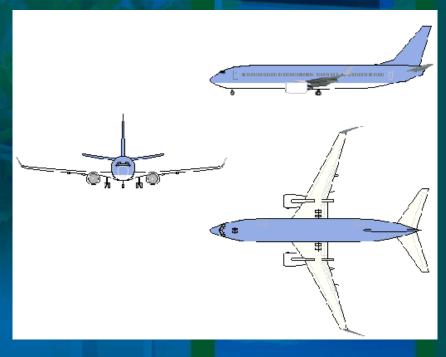
MTOW: 174,200

Gear: Dual Wheel

► ARC C-III

Regulatory Field Length @

MTOW: 8,150 '











Alternative 3 Airfield Minimum Projects

Short-Term

- Pavement Rehabilitation Runway 10R-28L
- Install ODALS
- Install REILs and PAPIs
- Rehabilitate Taxiway B pavement

Mid-Term

- Rehabilitate, Widen* and Strengthen Taxiways A, C, and E
- Lighted Signage (taxi route, holding position, ILS critical areas, distance to go, runway and taxi identification, etc.)
- Markings (taxiway centerline, edge, holding position, ILS critical area, SIDA and touchdown zone)
- Lighting (Centerline pavement lights, lead in and out lights, clearance bar lights, obstruction lights, stop bar lights, edge lighting, etc)
- Install MALSR & Upgrade Runway 10R-28L to HIRLS
- Strengthen Runway 10R-28L to 90,000 lbs
- Strengthen Existing Apron Pavements
- ► Construct Connector Taxiway 10R to 28R
- Extend, Rehabilitate and Strengthen Runway 14 and Taxiway B 60,000 lbs DW

Mid-Term

Construct partial parallel taxiway north of Runway
 10R and holding pad near Runway 14 threshold

Long-Term and Beyond

- Extend Runway 10R-28L to 8,000 feet and upgrade pavement to 300,000 lbs DTW (150,000 lbs DW)
- Extend and Strengthen Taxiway A
- Construct additional connector taxiway to Terminal Apron facilities from Partial North Runway 10R Taxiway
- Construct Terminal and General Aviation Aprons adjacent to Runway 10L-28R

Phasing Depends upon Demand and Funding Priorities







Alternative 3 Minimum Projects

Terminal/Support Facilities

Short-Term

- Perimeter Fencing and Road
- Segmented Circle
- High Intensity Beacon
- Upgrade Existing Terminal and Customs Facilities
- Acquire Additional ARFF Equipment and Materials

Mid-Term

- Construct Satellite ARFF facility and obtain additional ARFF Equipment and Materials
- Runway Visibility Range (3-Transmissometers)
- Expand ATCT
- Construct New Terminal and Customs Facilities

Other Facilities/Projects

Short-Term

- Environmental Studies
- Drainage Improvements
- Airport Operating Certificate, Airport Certification Manual, Wildlife Hazard Management, Emergency Plan and Exercises, etc.
- Personnel Training and Badging, etc

Mid-Term/Long-Term*

- Relocate Power lines
- Environmental Studies
- Drainage Improvements
- Part 150 and Airport Master Plan Updates
- Utilities, infrastructure and traffic concurrency
- Personnel Training and Badging, etc.

*Phasing depends upon Demand and Funding Priorities







Draft Extension of Runway 10R-

INISTRATION 28 L



- ▶ 1,500 NM Stage Length
- Commercial Service
- Boeing 737-800
- Part 121/135 Regulatory Field Length Requirements

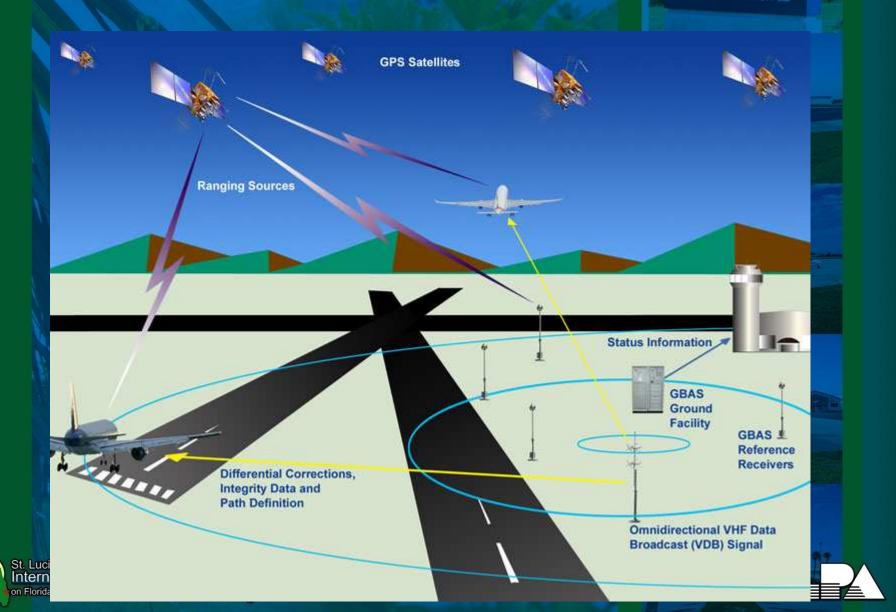






Local Area Augmentation System

ADMINISTRATION 4





Commercial Terminal/Customs Options







St. Lucie County International Airport Master Plan Update PASSENGER TERMINAL & CUSTOMS ALTERNATIVES - ALTERNATIVE B





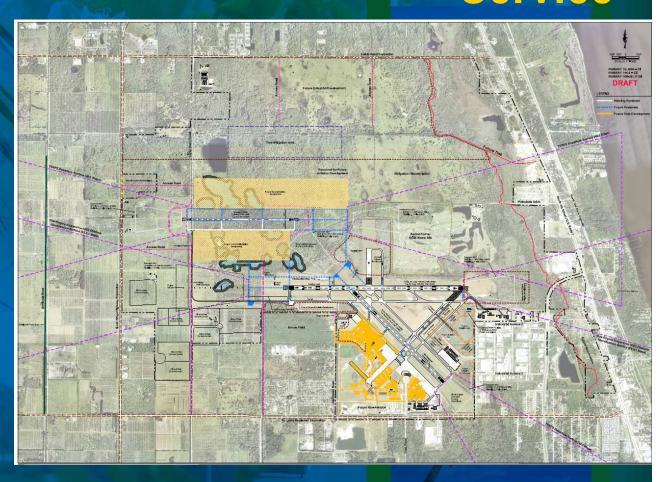
Alternative 3 – Commercial Stration Stration Service

Strengths

- Reserves for Future Development beyond 20-years
- Provides for lower visibility minima
- Accommodates Commercial
 Requirements and Forecast Demand
- Supports non-aviation and aviation development
- Improves Runway 14 intersection
- Allows for future expanded service if warranted
- Increased airfield flexibility
- Provides connectivity within airfield

Weaknesses

- Long-Term Costs
- Drainage & Environmental Impacts
- Impacts Airport West Commerce
 Park Development
- Requires relocation of Power Lines (beyond 2028 timeframe)
- Shortens Runway 32









Alternative Evaluation Criteria

- Optimize operational efficiency, effectiveness, capability and safety of the airport.
- Enhance the economic and social value of the airport.
- Meet long-range aviation needs of the community.
- Ensure that current and future airport plans are environmentally compatible and in harmony with local and regional plans and objectives.
- Consider recommendations of the focus groups, user groups, and general public.







Draft Alternative Matrix

	68	Alternatives		
Airfield Evaluation Criteria	1	2A	2B	3
Resolves Runway Object Free Issue	X	X	X	X
Accommodates ARC C-III aircraft	X	X	X	X
Lowers approach minima	5		X	X
Addresses Long-Term Operational Capacity	X	X	Χ	X
Accommodates Commercial Service	18/6	Χ	Χ	X
Land Acquisition/Easement		X	X	X
Environmental Impacts	X	Χ	Χ	X
Drainage Impacts	X	X	X	X
Relocation of Power Lines			X	X
Estimated Order of Magnitude Costs (in millions)	\$72	\$73.2	\$80	\$99.7







TAC Recommended Long-Term Development

- Short-Term Development (2009-2013)
- ► Mid-Term Development (2014-2018)
- ► Long-Term Development (2019-2029)
- Beyond 20-Year Planning Period

Project Phasing Ultimately Depends upon Need and Available Funding









TECHNICAL ADVISORY COMMITTEE RECOMMENDED DEVELOPMENT

October 14, 2009
Meeting







TAC Meeting – October 14











TAC Meeting – October 14









TAC Presentation & Discussion

ADMINISTRATION











Preliminary TAC Recommendations

- Members felt that airport development should be coordinated with long-term county transportation and growth management plans.
- Members agreed that Option 2A, limited commercial development, would provide the base for future development.
- ► TAC members stated that their intent is to not limit future airport development and use the airport as an economic generator for County and Region as a whole.
- However, based upon demand and justification, areas of the airport would be reserved for future development.
- Recommended development and proposed future land use to be coordinated with St. Lucie County Comprehensive Plan, Land Use and Zoning Plans.







Next Steps and Community Input

 Determine long-term development based upon Technical Advisory Committee, Airport Tenant and Public Input.

Study Reports, Presentations, Meeting Information, FAQs, and Comment Forms available of County Website

www.stlucieco.gov/airport_masterplan

- Present TAC, Tenant and Public Recommendations to Board of County Commissioners
- Develop Airport Layout Plan
- Develop Capital Improvement Program and Cash Flow Analyses.



